Exploring the factors that mediate the relationship between entrepreneurial education and entrepreneurial intentions among undergraduate students in Ghana

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Abstract

Purpose – The purpose of this paper is to propose and test a model to examine the factors that mediate the relationship between entrepreneurial education and entrepreneurial intentions among undergraduate students in Ghana. Specifically, the study identified entrepreneurial attitudes and behaviours (namely, risk-taking ability, self-efficacy, pro-activeness and behavioural control) that students ought to acquire through entrepreneurial education to increase their intentions to indulge in entrepreneurship.

Design/methodology/approach – The survey approach was adopted, with data collection done through administering questionnaires to students in the two public universities in the Central Region of Ghana. The model was tested using the partial least squares procedure.

Findings – The results found support for the proposed model, depicting that, with the exception of self-efficacy, other factors such as behavioural control, risk-taking ability and pro-activeness mediate the relationship between entrepreneurial education and entrepreneurial intentions of students.

Research limitations/implications – The major limitation of this study is that the proposed model was tested in only the public universities in the Central Region of Ghana. Subsequently, the validity of the model should be confirmed in other institutions.

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Practical implications – The findings suggest that entrepreneurial education should be integrated into the course structure of all programmes across all disciplines in the tertiary institutions of Ghana. This will promote entrepreneurship and alleviate unemployment among university graduates.

Originality/value – The study provides a basis for tertiary institutions to develop programmes, policies and measures to help students to build upon their ability to take a risk, control their behaviour and be pro-active. This will influence their quest to become self-employed and not to rely on others and the government for employment after graduation.

Keywords Entrepreneurial intention, Self-efficacy, Entrepreneurial education, Behavioural control, Pro-activeness, Risk taking ability, Partial least square

Paper type Research paper

Introduction

In Ghana, the development of the National Employment Policy, the implementation of the National Entrepreneurship and Innovation Plan (NEIP) and the provisions in the Medium-Term Expenditure Framework (MTEF) or National Medium-Term Development Policy Framework (NMTDPF) 2018–2021 give credence to the nation's commitment to promoting entrepreneurship in the country. Presently, the Government of Ghana is implementing the NEIP, as one of the flagship initiatives to boost entrepreneurship in the country. In fact, improving the entrepreneurial and technical skills of the youth is one critical policy objective of the NMTDPF 2018–2021. Therefore, to enable the Ministry of Business Development to carry out the one of its core function of promoting the development of entrepreneurial culture in Ghana, the estimated budget for National Entrepreneurship and Innovation stands at GH¢ 46,472,467 with Entrepreneurship Development and Training estimated at GH¢ 2,372,467 for the year 2018 (Ministry of Communications, 2018). A critical component of the strategies to achieve the objectives of Ghana's National Employment Policy is improving entrepreneurship training in pre-tertiary, vocational and technical, and tertiary institutions in Ghana (Ghana Ministry of Employment and Labour Relations, 2014). Meanwhile, when the national Business Support and National Business Plan Competition was launched and opened for business proposals, over 6,000 business proposals were received at the end of the deadline (Ministry of Communications, 2018). This could be an index of the prevalence of the intentions among the populace to be entrepreneurs. But the question is, has the introduction of entrepreneurship education in the tertiary institutions made any gains in enhancing the entrepreneurial intentions of students?

Statistics from the Labour Department highlights the extent of the worrying situation of unemployment in Ghana. It is reported that 109,723 unemployed people registered at the Labour department in 2014 with 44,752 unemployed people registering in 2015. Out of this number, the Public Employment Centres (PEC) were able to secure jobs for less than 10% (4,227) of these unemployed people in 2015 while the Private Employment Agencies (PEA) registered and secured employment for 73,391 people (Ghana Ministry of Employment and Labour Relations, 2014). This corroborates the claim by Gyensare *et al.* (2019) that SMEs account for 92% of business establishments, 85% of employment in the manufacturing industry and 70% to Ghana's GDP. The increasing rate of graduate unemployment is a major challenge regarding youth unemployment. This is a clear indication that the public sector is not capable of absorbing a large number of unemployed people and the growing numbers of graduates churned out every year. Undoubtedly, this is enough justification for the quest to engender the entrepreneurial spirit in graduates to enable them to generate novel business ideas with the motivation to establish their own businesses through entrepreneurial education.

Several people are graduating with the required knowledge, skill and ability required by industry, yet they do not find jobs because the economy has not grown and expanded enough to create the job space for them (Ghana Ministry of Employment and Labour Relations, 2014). However, there is enough evidence suggesting that the rising proportion of unemployment to some extent can be attributed to the skill gap. It is claimed that graduates are not able to secure jobs because they lack the necessary skills that the industry requires (Fedorov, 2011; Munro *et al.*, 2014). Any intervention, therefore, should be double-barreled to deal with the skill gap and the inadequate job space in the public and private sectors to accommodate the rising unemployed youth in the country. In the context of this job uncertainty, self-employment is vital not only because of the situational necessity but also because of its potential role to enhance innovation and development in the society (Sanchez *et al.*, 2017). Hence, the introduction of entrepreneurial education in the university to promote entrepreneurship among university students is a potential panacea to deal with the lack of employable skills among graduates and the inadequate job opportunities even for those with the required skills.

Entrepreneurial education has been proven empirically by earlier studies to be one of the most vital determinants of an individual's intention to become an entrepreneur (Lorz and Volery, 2011). Although the importance of entrepreneurship education had been recognized in the literature, limited empirical studies have been conducted to analyse the impact on entrepreneurial intention separately from general education (Merrill *et al.*, 2008; Appiah-Nimo *et al.*, 2018; Mahmood *et al.*, 2020). As mentioned by Hussain (2015), the effect of general education has been explored but only a few studies have looked at entrepreneurial education, particularly at the university or tertiary institution level. According to Hussain (2015), the effect of entrepreneurship education on entrepreneurial intention is limited and still undergoing empirical testing. In their study, Zhang *et al.* (2014) concluded that despite the importance of entrepreneurship education, it is commonly observed that few studies are conducted to envision the impact of entrepreneurship education on intention. Zhang *et al.* (2014) claim that a survey of the literature on entrepreneurial intentions among students depicted that inadequate studies have been conducted at a tertiary institution. Consistent with this claim, literally, limited studies have been conducted to analyse the effect of entrepreneurship education on entrepreneurship intentions among undergraduate students in Ghana. Therefore, this study seeks to examine the factors that mediate the relationship between entrepreneurship education and entrepreneurial intentions among Ghanaian undergraduate students.

Literature review and hypothesis formation

The theory of planned behaviour and entrepreneurial intention

Izedonmi (2010) observes that intentionality is a state of mind that directs a person's attention (experience and action) toward a specific object (goal) or a path to achieve something (means). It emphasizes the reasons or motivational factors identified by founders which underline their action in starting up a firm. As perception is attitudinal in nature, a great form of the entrepreneurship intention works observed the features that impact entrepreneurship intention such as attractiveness to become entrepreneurs, traits personality, entrepreneurs' skills, finance capabilities and self-efficacy among others. For the determination of the research in this study, entrepreneurial intention is defined as a person or group of student(s)'s inclination and readiness to become self-employed in the near future.

This concept can be better understood in the theory of planned behaviour (TPB) (Ajzen, 2011). The TPB stipulates that there are three predictors of intention: attitude towards the

behaviour, subjective norms and the degree of perceived behaviour control. Attitude towards a behaviour is a reflection of the individual's appraisal of the behaviour. The appraisal may be placed along a continuum ranging from favourable to unfavourable. According to the theory, the more favourable the appraisal, the greater the intention. The second predictor, subjective norms, refers to the degree to which family, friends, peers and society at large expect or pressure the individual to perform the behaviour in question. Perceived behavioural control refers to the extent to which the individual feels capable of performing the behaviour. It is based on the individual's know-how and experience and his or her appraisal of likely obstacles to performing the behaviour. It is worthy to note that "perceived behavioral control is a function of beliefs about resources, opportunities, and other factors that facilitate or obstruct behavioral performance" (Yzer, 2012, p. 104).

The relationship between entrepreneurial education, cognitive beliefs and entrepreneurial intentions

Generally, entrepreneurship education has been found to have a positive influence on attitudes and capabilities that enhance entrepreneurial intentions (Zhao *et al.*, 2005; Mahmood *et al.*, 2020). In one of the few studies conducted in Ghana, Appiah-Nimo *et al.* (2018) assessed the influence of entrepreneurship course on entrepreneurial intentions and found that attitudes, behavioural control while subjective norms did not show any significant influence on entrepreneurial intentions. Dinc and Budic (2016) also examined the relationship between personal attitude, subjective norm, perceived behavioural control and entrepreneurial intentions of women in the Federation of Bosnia and Herzegovina using in a study involving 216 participants using questionnaires. The findings showed a positive and significant relationship between personal attitude, perceived behavioural control and entrepreneurial intention.

Hu *et al.* (2018) also examined the mediating effect of entrepreneurial alertness in the relationship between proactive personality, creativity and entrepreneurial intentions. A field survey was conducted on undergraduate Chinese students from 26 universities. The findings indicated a significant correlation between proactive personality and entrepreneurial intentions. In a laboratory experiment by Macko and Tyszka (2009), the results showed that even though the actual entrepreneurs demonstrated the highest level of confidence, in well-defined risky situations would-be entrepreneurs or actual entrepreneurs did not show to be more risk prone than students with no intention of starting a business. However, in actual business risky situations, entrepreneurs were found to make more risky choices than non-entrepreneurs.

The empirical review highlights the idea by Uy *et al.* (2015) that entrepreneurship education influences the personality of young entrepreneurs, while environmental support influences the entrepreneurial attitude of young entrepreneurs. Thus, it is suggestive that entrepreneurial education is capable of shaping the personality and entrepreneurial attitude of students which could in turn influence the development of entrepreneurial intention. The theory of planned behaviour assumes that the intentions of an individual largely reflect the individual's attitudes and that this will be influenced by the perceived and cognitive beliefs about the act. Hence, the current study examines whether entrepreneurial education could influence the development of critical perceived and cognitive beliefs as identified in the literature to influence students' intentions to be entrepreneurs.

H1. Entrepreneurial education is positively related to students' entrepreneurial intentions.

H2. Behavioural control will mediate the relationship between entrepreneurial education and entrepreneurial intentions.

H3. Proactive personality will mediate the relationship between entrepreneurial education and entrepreneurial intentions.

H4. Risk-taking propensity will mediate the relationship between entrepreneurial education and entrepreneurial intentions.

H5. Perceived self-efficacy will mediate the relationship between entrepreneurial education and entrepreneurial intentions.

Methodology

The study falls within the quantitative research paradigm which made use of primary data (Figure 1). To address the research problem, a survey research design was adopted in the study. A questionnaire was used to collect data in a cross-sectional field survey. The target population of the study was undergraduate students in public universities within the central region of Ghana. The study targeted undergraduate students of both the University of Cape Coast (UCC) and the University of Education, Winneba (UEW) as at the year 2019. The study targeted only the above because they are the only public universities within the region with a total population of 59,916 and 34,949 students, respectively. The research sample consists of 226 final year undergraduate business students from the two universities.

Measurement

As a starting point, literature was reviewed to identify scales that have been used in previous studies with a similar focus. The researchers adapted a measuring instrument called the Entrepreneurship Intentions Questionnaire developed by Lorz and Volery (2011). Scales from Santos *et al.* (2016) for measuring entrepreneurial attitudes by using the theory of planned behaviour was adopted. The instrument was modified to include other items

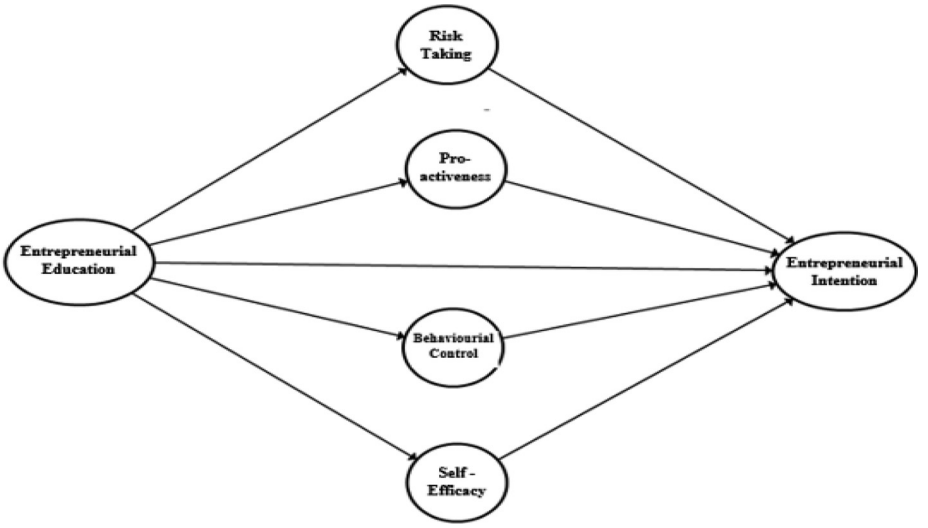

Figure 1.
Proposed path model and hypothesized relationships

from Nieuwenhuizen (2016), as the variables under study were not all found in single literature under review. To ensure the validity and reliability of the measuring instrument, the researchers carefully selected the items for inclusion in the instrument to cover all the variables under study and a pilot study was conducted thereafter. Responses to questions of the study were anchored on a five-point Likert-type scale ranging from the numerals 1 (total disagreement) to 5 (total agreement).

Data analysis, results and discussions

In this study, a sample size of 226 valid responses were received, and the structural equation modelling was used in analysing through the partial least square (PLS) approach. The variance-based PLS technique is a latent variable modelling technique that combines multiple dependent constructs, and it is regarded as convenient in investigating predictive and descriptive associations (Hair *et al.*, 2011).

The analysis and interpretation were done in two phases. Measurement of the model was tested in the first phase by performing validity and reliability examination on each of the constructs of the model. In the other phase, the structural model was tested by estimating the paths between the constructs in the model. This phase also captured the determination of the level of significance of the constructs and the predictive ability of the study model. All this was done to ensure that the measurements of all the factors are valid and reliable before conclusions on the nature of the relationships among the various constructs to be drawn (Okyireh *et al.*, 2018).

Reliability and validity

The initial test conducted was the "Reliability of the items" (as reported in Table 1). It was realized that all the items of the variables had individual indicator reliability values that are higher than the minimum satisfactory level of 0.4 and close to the ideal level of 0.7 (Okyireh *et al.*, 2018). The Cronbach's alpha test which is noted to be used usually to measure internal consistency reliability among items was tested on the variables as well. Nevertheless, Hair *et al.* (2011) assert that the use of Cronbach's alpha in measuring internal consistency reliability tends to provide a conservative measurement in PLS-SEM. Preceding studies (Hair *et al.*, 2011; Henseler *et al.*, 2015) have proposed the use of "Composite Reliability" as a replacement. In assessing reliability, higher values indicate higher levels of reliability. Composite reliability values between 0.60 and 0.70 are considered adequate in exploratory research, whereas values between 0.70 and 0.95 are considered satisfactory (Hair *et al.*, 2011). From Table 1, both Cronbach's alpha and composite reliability values are shown to be larger than 0.6; therefore, high levels of internal consistency reliability have been demonstrated among all four reflective latent variables. To test for convergent validity, each latent variable's average variance extracted (AVE) was evaluated. The AVE values were above the threshold of 0.5 as proposed by Henseler *et al.* (2015).

Lastly, the Fornell–Larcker Criterion showed that all diagonal values which represent the square root of the AVE were found to be higher than the correlation that relates one factor to another as recommended by Fornell and Larcker (1981) (Table 2). This establishes discriminant validity in the data for the study. It is concluded that the measurement model exhibited acceptable psychometric properties and hence further analysis can be done.

Structural path significance in bootstrapping

As shown in Figure 2 and Table 3, the estimated values for path relationships in the structural model were evaluated and reported in relations to the sign, magnitude and significance as per the bootstrapping conducted. The four paths from entrepreneurial

Latent variable	Items	Factor loadings	Cronbach's alpha	Composite reliability	Average variance extracted (AVE)
Behavioural control	BC1	0.657	0.745	0.742	0.420
	BC2	0.592			
	BC3	0.691			
Entrepreneurial education	EE1	0.588	0.855	0.850	0.490
	EE2	0.634			
	EE3	0.636			
	EE4	0.747			
	EE5	0.698			
	EE6	0.863			
Entrepreneurial intention	EI1	0.746	0.733	0.732	0.478
	EI2	0.625			
	EI3	0.697			
Pro-activeness	P1	0.754	0.784	0.783	0.424
	P2	0.547			
	P3	0.723			
	P4	0.559			
	P5	0.645			
Risk taking	R1	0.727	0.754	0.734	0.312
	R2	0.404			
	R3	0.529			
	R4	0.525			
Self-efficacy	SE1	0.697	0.837	0.835	0.421
	SE2	0.648			
	SE3	0.682			
	SE4	0.559			
	SE5	0.620			
	SE6	0.679			
	SE7	0.649			

Table 1. Factor loadings, Cronbach's alpha, composite reliabilities and average variance extracted

Latent variables	BC	EE	EI	P	RT	SE
BC	*0.648*					
EE	0.553	*0.700*				
EI	0.881	0.506	*0.691*			
P	0.824	0.517	0.519	*0.651*		
RT	0.585	0.654	0.584	0.544	*0.558*	
SE	0.781	0.560	0.631	0.717	0.446	*0.649*

Notes: Behavioural Control – BC, Entrepreneurial Education – EE, Entrepreneurial Intention – EI; Pro-activeness – P, Risk-Taking – RT, Self-Efficacy – SE

Table 2. Square root of average variance extracted (AVE) and correlations among all constructs in the model

education to risk taking, pro-activeness, behavioural control and self-efficacy were all positive and significant thus, (coefficient, $\beta = 0.495$, t-statistic = 9.028, $p < 0.001$), ($\beta = 0.427$, t-statistic = 6.831, $p < 0.001$), ($\beta = 0.503$, t-statistic = 10.019, $p < 0.001$) and ($\beta = 0.476$, t-statistic = 8.769, $p < 0.001$), respectively. Similarly, the path to entrepreneurial intentions from risk taking, pro-activeness and behavioural control were all proved as positive and significant, i.e. ($\beta = 0.121$, t-statistic = 2.255, $p < 0.005$), ($\beta = 0.340$, t-statistic = 4.984, $p < 0.001$) and ($\beta = 0.338$, t-statistic = 4.610, $p < 0.001$), respectively. However, the

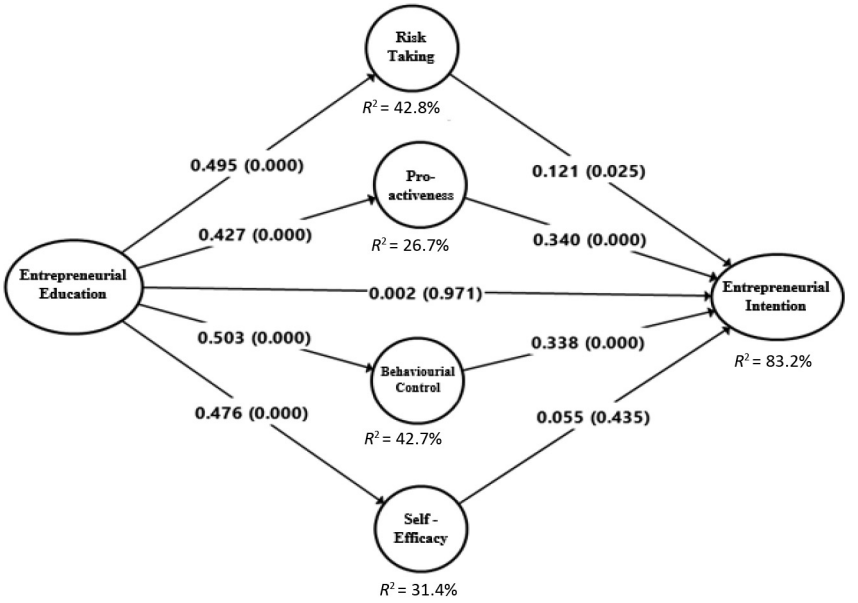

Figure 2.
Results of structural model assessment

Path	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (|O/STDEV|)	*p* values
BC→ EI	0.338	0.337	0.073	4.610	0.000
EE→ BC	0.503	0.506	0.050	10.019	0.000
EE → EI	0.002	−0.005	0.060	0.036	0.971
EE → P	0.427	0.431	0.063	6.831	0.000
EE → RT	0.495	0.502	0.055	9.028	0.000
EE → SE	0.476	0.479	0.054	8.769	0.000
P → EI	0.340	0.338	0.068	4.984	0.000
RT → EI	0.121	0.124	0.054	2.255	0.025
SE → EI	0.055	0.065	0.070	0.781	0.435

Notes: Behavioural Control – BC, Entrepreneurial Education – EE, Entrepreneurial Intention – EI; Pro-activeness – P, Risk-Taking – RT, Self-Efficacy – SE

Table 3.
Results of partial least square path analysis

relationship between self-efficacy and entrepreneurial intention was not significant (β = 0.055, *t*-statistic = 0.781, $p > 0.005$). Similarly, the test revealed that the direct path from entrepreneurial education to entrepreneurial intention was insignificant (β = 0.002, *t*-statistic = 0.036, $p < 0.005$). This finding runs contrary to the assertion made in *H1*.

The R^2 value of all endogenous constructs were assessed to measure the percentage of variance explained in each of the endogenous constructs and the model's in-sample prediction accuracy. The R^2 values ranged from 0 to 1, with higher levels demonstrating a greater degree of predictive accuracy (Henseler *et al.*, 2015). According to Hair *et al.* (2011), the R^2 values of 0.75, 0.50 and 0.25 may be considered substantial, moderate and weak,

respectively. In this study, R^2 values of the endogenous constructs show that entrepreneurial education explains 42.8, 26.7, 42.7 and 31.4% of the variance in risk taking, pro-activeness, behavioural control and self-efficacy, respectively. This, in essence, means that, entrepreneurial education moderately explains the variance in the intervening variables. Furthermore, a combination of the independent variable and the all the intervening variables (risk taking, pro-activeness, behavioural control and self-efficacy) explains 83.4% of the variance in the dependent variable (entrepreneurial intention).

Mediation effects

Table 4 shows the mediation effects of the intervening variables (behavioural control, pro-activeness, risk-taking and self-efficacy) based on the assessment of the specific indirect effects of entrepreneurial education on entrepreneurial intention. The analysis revealed that significant specific indirect effects exist in the relationship between entrepreneurial education and entrepreneurial intention mainly through behavioural control (EE → BC → EI: $\beta = 0.170$, $p < 0.001$), pro-activeness (EE→ P → EI: $\beta = 0.146$, $p < 0.001$) and risk-taking (EE → RT→ EI: $\beta = 0.029$, $p < 0.05$). Hence, behavioural control, pro-activeness and risk-taking attitudes of students mediate the relationship between entrepreneurial education and entrepreneurial intention as stated in *H2*, *H3* and *H4*. Contrary to the assertion made in *H5*, self-efficacy was found not to be a significant mediator in the relationship between entrepreneurial education and entrepreneurial intention.

Discussion

This study was designed to test for the prediction of *H1* to *H5*. The results of the current study show no direct significant link between entrepreneurial education and entrepreneurial intention. The study confirms the study by Sanyal and Al Mashani (2018) who claims that entrepreneurship education has no significant impact on the intention to pursue an entrepreneurial career. Additionally, it is in line with the study of Izedonmi (2010) and Yildirim *et al.* (2016) who found that entrepreneurial education indirectly influences the intent of students to be entrepreneurs. This finding is due to the fact that entrepreneurship curricula exposes students to the world of entrepreneurship and stimulates students' entrepreneurial interest and knowledge (Olokundun *et al.*, 2018), hence, increasing their propensity to exhibit attitudes such as behavioural control, take risk and be pro-active in creating their own businesses but does not directly affect their intention to embark on entrepreneurship.

Buck *et al.* (2016) is of the view that mental skill training is capable of enhancing a person's sense of pro-activeness, ability to take a risk and exhibiting the ability to control his or her own behaviour towards achieving a set goal. Entrepreneurial education focuses on

Hypotheses	Path	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (|O/STDEV|)	*p* values	
H2	EE→ BC → EI	0.170	0.170	0.040	4.205	0.000	Mediation
H3	EE→ P → EI	0.145	0.146	0.037	3.965	0.000	Mediation
H4	EE → RT→ EI	0.060	0.062	0.029	2.093	0.037	Mediation
H5	EE→SE →EI	0.026	0.030	0.034	0.767	0.443	No mediation

Notes: Behavioural Control – BC, Entrepreneurial Education – EE, Entrepreneurial Intention – EI; Pro-activeness – P, Risk-Taking – RT, Self-Efficacy – SE

Table 4. Mediation effects through specific indirect effects

systematically developing conceptual understandings and essential knowledge about entrepreneurship. The knowledge base and the higher-order cognitions acquired by students as a result of entrepreneurial education make them believe in their ability to reflect and evaluate information to make informed decisions. The pedagogy or instructional design of the entrepreneurship education provides opportunities for the vicarious experiences, social persuasion and mastery experiences through which behavioural control, risk-taking and pro-activeness are engendered (Zhao *et al.*, 2005).

A sense of taking risks predisposes the individual to have confidence in his or her own abilities, to meet the challenges and to successfully accomplish a task (Alam *et al.*, 2020). In essence, people with a high sense of risk-taking and behavioural control have a firm belief that they can navigate through the uncertain challenges that confront the quest to become entrepreneurs. The study reveals that entrepreneurship education creates a sense of pro-activeness among students which in turn leads to their intentions to become entrepreneurs. Undoubtedly, beliefs of behavioural control tell how people feel, think, motivate themselves and behave (Dinc and Budic, 2016). Mostly the plans, approaches, strategies and decisions adopted in dealing with situations are primarily organized through forethought. As people's beliefs in their ability shape their imaginable experiences and the consequent anticipatory scenarios they construct and rehearse (Alam *et al.*, 2020), people with a high sense of taking risk are more likely to visualize themselves succeeding and accomplishing their dreams of entrepreneurship.

The findings indicated that perceived behavioural control has a significant relationship with entrepreneurial intention and that the perceived behavioural control mediates the relationship between entrepreneurial education and entrepreneurial intentions. This is in line with previous studies (Dinc and Budic, 2016; Appiah-Nimo *et al.*, 2018) that showed a positive and significant relationship between perceived behavioural control and entrepreneurial intention. It is worth noting that perceived behavioural control reflects the apparent ease or difficulty to engage in a behaviour. Buck *et al.* (2016) suggest that individuals who avoid starting their own businesses believe more strongly that life is controlled by chance when compared to their counterparts who found their own business. The intention to become entrepreneurs goes with an anticipation of obstacles and barriers. Some of these barriers include securing funds for start-up, meeting regulatory requirements and the extent of competition in the industry among others. So when individuals believe that the success or failure of starting and sustaining a business is largely due to chance and not factors within one's control it is likely to deter the individual to want to go into one's own business. The finding suggests that when students have positive and favourable beliefs about their own abilities and skills and probability to control the process of creating and sustaining a business, their entrepreneurial intentions will increase.

Individuals with high perceived behavioural control are likely to be more motivated to perform a particular behaviour and to be persistent in efforts to engage in the behaviour (Yzer, 2012). It is suggested that conceptually, perceived behavioural control is the same as self-efficacy (Byabashaija *et al.*, 2011; Bhattacharyya and Kumar, 2020). Therefore, these people with high perceived behavioural control believe that they are capable of, or have control over becoming entrepreneurs. This is because they are more likely to judge their ability to organize and execute an entrepreneurial venture. With confidence in their ability to perform, they are more motivated to try to start up a business with the likelihood that they would strive to be able to accomplish that. It is also possible that the curricular activities within the entrepreneurial education expose students to the challenges and opportunities in the area of entrepreneurship in the country. For example, the implementation of the National Entrepreneurship and Innovation Plan (NEIP) is a major boost for young entrepreneurs to

access capital and support for start-up businesses in Ghana. This is likely to create the conviction among students that resources and opportunities are available to engage in entrepreneurship and that they have the opportunity to assess the resources and opportunities. This motivates the students to have that inclination to want to go into entrepreneurship. On the other hand, people with low perceived behavioural control are less likely to be motivated to engage in a particular behaviour and would be less reluctant to engage in such behaviour. Thus, when they perceive that they have less capacity to grapple with the challenge of entrepreneurship with situational factors that constrain the success starting a business and sustaining it, entrepreneurship will not be appealing to such individuals. Hence, their low levels of intentions to engage in entrepreneurship.

Moreover, the study found that there is a correlation between risk perception and entrepreneurial intentions. This supports earlier studies (Vantilborgh *et al.*, 2015; Sanyal and Al Mashani, 2018). However, it does not support the claim by Macko and Tyszka (2009) that even though actual entrepreneurs demonstrate the highest level of confidence, in well-defined risky situations would-be entrepreneurs or actual entrepreneurs do not show to be more risk-prone than students with no intention of starting a business. It needs to be pointed out that entrepreneurship is characterized by the discovery and exploitation of opportunities. The implication is that entrepreneurship by its very nature involves risk and uncertainty which is expected to be managed in a complex and volatile environment.

Furthermore, this finding is consistent with previous studies (Delle and Amadu, 2015; Uy *et al.*, 2015; Vantilborgh *et al.*, 2015) which found proactive personality as a significant predictor of entrepreneurial intention. A proactive personality trait highlights an individual's tendency to act. Even though this is a personality trait, our findings suggest that this tendency can be enhanced by entrepreneurial education. Consequently, people with high proactive personalities are more likely to believe that they can do (Fuller *et al.*, 2018). People with proactive personalities are action-oriented and resilient to strive to create something new. The individual with a proactive personality tends to exploit opportunities and can creatively deal with risk with novelty. Therefore, people with proactive personalities will be more inclined towards entrepreneurship than those without a proactive personality. Delle and Amadu (2015) assert that proactive individuals possess the vigor and vitality, motivation and the passion to become successful entrepreneurs (Grant and Ashford, 2008). Proactive personality spurs individuals on to self-initiate an anticipatory change-oriented action in the face of uncertainty. In practical terms, in the face of high unemployment in Ghana, people with proactive personality would make effort to take control and endeavour to start businesses on their own rather than just trying to cope with the situation just like what some other graduates do by sitting aloof. It has been established that proactive personality is associated with entrepreneurial alertness (Uy *et al.*, 2015; Hu *et al.*, 2018).

Conclusion

The findings of this study have some policy implications. There is every indication that entrepreneurship education is crucial to tackling the high unemployment rate in Ghana. It is imperative that educational institutions introduce entrepreneurial education as part of the curricula of the various academic programmes. Entrepreneurship education has the potential to engender self-efficacy, behavioural control, risk-taking and proactive personality among students which are essential to enable the students to makes enough consideration to make planned efforts to engage in entrepreneurship as an alternative job search.

The Ministry of Education in Ghana needs to ensure that entrepreneurship is integrated into the secondary and tertiary education curricular. Beyond that government need to take pragmatic steps to make the entrepreneurial landscape more facilitating by ensuring effective implementation of the National Entrepreneurship and Innovation Plan (NEIP). The government needs to focus more on adopting policies that facilitate entrepreneurship such as providing appropriate subsidies and tax reliefs and exemptions.

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